

Examiner: Robert E. Mosser // Art Unit 3714

**ABOUT THE OBJECTIONS TO THE SPECIFICATIONS**

We respectfully thank the examiner for pointing out to us US Patent 6,331,145 to Sity et al. that had escaped our investigation of possible prior art. Indeed, we missed this Patent quite important to the subject matter of our own application mostly because the Bluetooth™ technology (and somewhat related versions of the IEEE 802.11 standard) conditioned the keywords that we used to search the Internet and the US Patent database. Indeed, we take notice of the multiple cases where Sity clearly contains prior art to 10/810,529.

We do accept that Sity contains a substantial amount of prior art as pointed out to us by the examiner. We also take good notice of the claims that may be allowed if rewritten properly as kindly indicated by the Examiner.

However, before we propose a new set of claims, we respectfully point out that, beside what the Examiner has recognized as potentially allowable after proper rewriting, a few other the novelties claimed in 10/810,529 stand, we believe, as legitimate claims. We now give a list of such claims whose novelty may have been overlooked (in some cases because they were not written adequately), with comments for each of them, beginning with the rejections under 35 USC § 102 and continuing with one of the rejections under 35 USC § 103. We expect that this list and the accompanying discussion will be proper preamble for the new set of claims that will be proposed below.

**A) On some of the Claims Rejections under 35 USC § 102**

**I. About Claim 19 the Examiner wrote:**

“ Claims 14, 19: Sity teaches the electronic die as further utilizing mechanical sensors to determine the orientation of the die. As mechanical systems are subject to gravity at least part of the detection by the mechanical sensor would be subject to an influence by gravity.” On this

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matter we agree with the judgment of the Examiner, but we point out that (as in other places) the claims were written without knowing that there was out there a US Patent like Sity. Since some novel ways to use gravity to detect the positioning of a die or any other object are disclosed in the specifications, we propose claims describing these novelties. Some aspects of these novelties relate to the timing that may be regulated by moving parts, but perhaps more importantly; the methods relates to the positioning of the any object in space, and does not require any surface on which the object would lie. Hence the method described here for dice could mutatis mutandis be adapted in an object that would help protect people who get trapped in an avalanche and more generally need to know where is up and down so that may know in which direction to dig, disorientation being a known reason as to why people cannot dig themselves out.

**II. About Claims 27, 29, 31, the Examiner tells us:**

“ Claims 24-27, 29-32: Sity teaches the electronic die that allows the judgment of the correctness and fairness of the Die (Elm 222,224 and Figure 5).

Claim 28: Sity teaches the use of encryption to protect communication from the die (Col2:58-64).”

Let us now recall for easy reference the full statement of Claims 27, 29, 30 and 31 as they stand before any correction is made:

Claim 27. A die as in Claim 2 where said die stores information and contains embedded equipment that allows judging and correcting its fairness.

Claim 29. A die as in Claim 1 where the embedded systems are securely protected and also permit one to recognize, and allow one to detect fraudulent attempts to break in the die.

Claim 30. A die as in Claim 2 where the embedded systems are securely protected and also permit one to recognize, and allow one to detect fraudulent attempts to break in the die.

Claim 31. A die as in Claim 29 where said die emits alerts when fairness is not respected and

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such that the lack of fairness is acknowledged by the dice upon authorized enquiry.

- The function of correcting fairness in our Claim 27 is not covered by Sity.
- The capacity to “detect fraudulent attempts to break in the die” in our Claim 28 is not covered by Sity.
- The alerts emission when fairness is not respected in our Claim 31 is not covered by Sity.
- The role of an authority in inquiring about fairness in our Claim 31 is not covered by Sity.

**III. About Claims 49-51, the Examiner wrote:**

“ Claims 49-51: The listed claims present limitations directed to the intended use of an apparatus and accordingly fail to further define the claimed intension.”

For easy reference we recall here Claim 50

Claim 50. A die as in Claim 2 where throws of said die are prompted at some phases of the game, and the state of said die after the throw is recognized and input in the unfolding of the game without any player having any further input to make such as indicating that the throw has been performed and/or that the information sent by said die about its state is complete so that the game can proceed.

We do not disagree with the opinion of the Examiner on Claims 49-51, but we notice that matters related to these claims as well as to Claims 44 and Claims 45-48 are covered in great details. Consequently we will propose new claims on these matters. These new claims will address the technologies and methods enabling intended uses of the sort that was reported in Claim 50 rather than addressing these intended uses.

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**B) On some of the Claims Rejections under 35 USC § 103**

**IV.           About Claim 4-12 and 33-36 the Examiner wrote (and we separate in thre parts a, b, and c for easier reference:**

“ Claims 4-12 and 33-36 are rejected under 35 U.S.C. 103 (a) as being unpatentable over by Sity et al (US 6, 331, 145).

- **a)** Clams 4-5, and 11: Sity teaches the electronic die as described above including the incorporation of RF communication, Sity however is silent regarding the particular RF communications protocol utilized for RF communication. The Examiner gives official notice that the RF communication protocols of Bluetooth, 802.11, and ad-hoc are extremely old and well known communications protocol at the time of claimed invention. It would have been obvious to one of ordinary skill in the art at the time of the invention to have incorporated known communication protocols into the RF communication system of Sity because such a combination represents a mere combination of known elements through conventional manner to yield predictable and expected results.

- **b)** Claims 6,8, and 12: Sity teaches the inclusion of one or more batteries an the inclusion (of) photoelectric cells (Col 6:24-27) however, Sity is arguably silent regarding combining both of these power methods in a singular embodiment of the invention. It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the known power devices of Sity to provide redundant power supply. Sity additionally teaches the need to replace batteries (Col 6:20-23).

- **c)** Clams 7, and 9: Sity teaches the inclusion of a no battery embodiment of this invention including the receipt on operating energy trough transmitted radio waves (Col 6: 9-22) however

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is silent regarding the incorporation of a capacitor and a transducer. The Examiner gives official notice however that the inclusion of a transducer and a capacitor however is extremely old and well known in the art for receiving driving electrical power through wireless transmission. Accordingly it would have been obvious to one of ordinary skill in the art at the time of the invention to have incorporated a capacitor and transducer into the no battery embodiment of the invention of Sity in order to employ known wireless power transfer methods and apparatus of Sity to get expected and predictable results.

About the points in - **a)** on claims 4-5, and 11: we respectfully argue that the trivial character of using Bluetooth or related protocols in the context of the die is contradicted by the fact that at the time of our invention, there still was not a single application of Bluetooth that did not consist in replacing a wired connection by a Bluetooth connection. Furthermore, because of the specifications of the Bluetooth protocol, the application of that protocol to the context of the game where the power source is small yet communication channels should be open if Bluetooth is to be used poses some problems as discussed in details in our specifications see for instance sections [0098], [0120], [0145].

About the points in - **b)** on claims 6, 8, and 12: we respectfully call the attention of the Examiner to the fact that the usage of several sources of energy depends on two types of subtle issues. On the one hand, a combination of a small battery and a small supplemental transducer is presented as a way to use Bluetooth with no or minimal battery charges. On the other hand, the specificity of primary sources of energy such as heat and motion that can be used in combination with other energy sources (or reservoirs) allows one to various forms of timing and/or prompting of transmissions that are of potentially great value, and in particular may be the key to let the electronic die smoothly and seamlessly participate to the computer or casino game experience. Thus, the points of the examiner are fully justified when it comes to the claims as they are written but the specification of our invention supports some claims related to simultaneous use of several energy sources in ways that are important to the optimality of the invention.

About the points in - **c)** on claims 7 and 9: we have the same position as just reported about the points in - **b)** on claims 6, 8, and 12. Thus, the points of the examiner are fully

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justified when it comes to the claims as they are written but the specification of our invention supports some claims related to the use of transducers and capacitors in ways that are important to the optimality of the invention.

We next provide the new proposed set of claims that combines claims according to the recommendations kindly provided by the Examiner with claims that reflect the discussion above where we mostly accept the critics of the Examiner but feel that the specification supports more precise claims.